

## (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
11 November 2004 (11.11.2004)

PCT

(10) International Publication Number  
**WO 2004/097965 A2**

(51) International Patent Classification<sup>7</sup>: **H01M 8/00**

(21) International Application Number:  
PCT/JP2004/003781

(22) International Filing Date: 19 March 2004 (19.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2003-123673 28 April 2003 (28.04.2003) JP

(71) Applicant (for all designated States except US): **NISSAN MOTOR CO., LTD.** [JP/JP]; 2, Takara-cho, Kanagawa-ku, Yokohama-shi, Kanagawa 2210023 (JP).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SHIMOI, Ryouichi** [JP/JP]; 4-36-13, Tomiokanishi, Kanazawa-ku, Yokohama-shi, Kanagawa 2360052 (JP). **SHINOHARA, Kazuhiko** [JP/JP]; 7-41-1-101, Tomiokanishi, Kanazawa-ku, Yokohama-shi, Kanagawa 2360052 (JP).

(74) Agent: **GOTO, Masaki**; Shoyu-Kaikan, 3-1, Kasumigaseki 3-chome, Chiyoda-ku, Tokyo 1000013 (JP).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

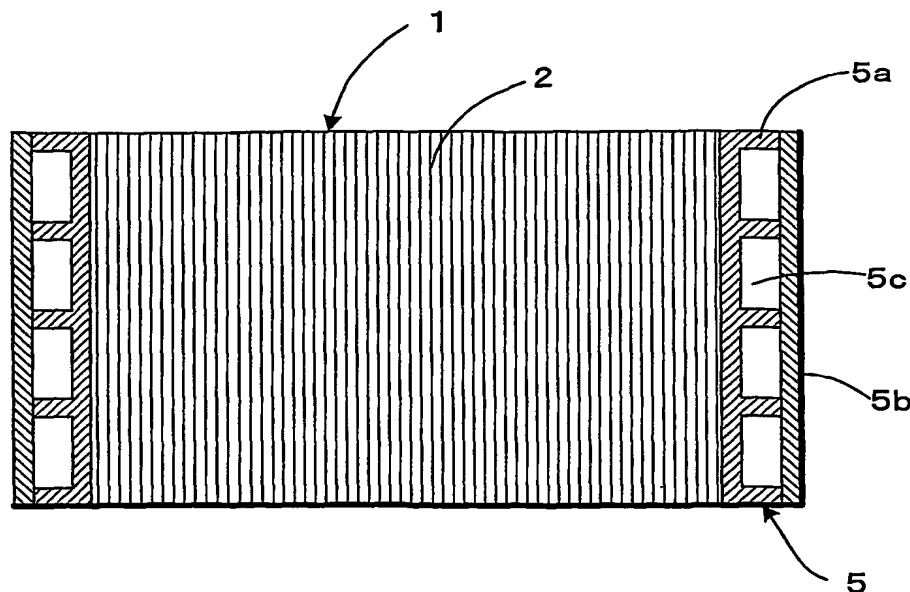
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: FUEL CELL ASSEMBLY AND FUEL CELL SYSTEM



(57) Abstract: A fuel cell assembly (1) is disclosed. The fuel cell assembly (1) has a fuel cell stack (2) formed by laminating a plurality of cells; plus and minus current extraction sections (4), the current extraction sections (4) extracting current generated by the fuel cell stack and sandwiching the fuel cell stack with respect to the direction of lamination; and a passage (4a) allowing flow of a fluid provided in at least one of the current extraction sections. Further a fuel cell system, which has the above fuel cell stack and a heating device (24, 26, 32, 90) for heating the passage for the fluid, is disclosed.